

merely returning occasionally to see that they are safe, and to take care of the young birds as soon as they are hatched. The colour of the eggs so much resembles the material in which they are laid that it is difficult to distinguish them from it without careful search.

“After heavy rain the Wire-bird may be seen frequenting and running along the edges of the pools of water; but generally it finds little water in the island to indulge its wading propensities. This deprivation does not appear, however, to interfere with its happiness; for it is very doubtful if it ever leaves the island.”

There seems to be no appreciable difference in the colour of the sexes. The young remain to be described.

XXXI.—*Notes on the Trochilidæ. The Genera Pygmornis, Glaucis, and Threnetes.* By OSBERT SALVIN, M.A. &c., and D. G. ELLIOT, F.L.S., F.Z.S., &c.

[Continued from page 14.]

II. *The Genus Pygmornis.*

THE species of this intricate group can be differentiated only by a close study of the changes which take place in the plumage exhibited by individuals, both as regards their sex and age. Mr. Gould, in his article on *Phaethornis adolphi* (Mon. i. p. 85), records M. Sallé's observations as regards the relationship between the colours of the sexes of this species as ascertained by him from actual dissection of specimens procured near Cordova, Mexico. His conclusions were, that all the individuals with short and rounded tails were males, while the females had the two central rectrices more prolonged, and the lateral with a dark zone between their bronzy bases and buff tips. Viewing the other members of the group with the light that these observations give us, we find that the males as they increase in age grow darker on their under surface, especially on the throat, that the tails in the same sex become shorter and more rounded, and that the light colour of the tips becomes evanescent—a similar fact to that which

we have already noticed in members of the allied genus *Phaethornis*, especially in the group containing *P. guyi* and its allies. The females do not appear to pass through these changes, but retain the light colour of the under surface, the elongated rectrices, and the well-defined light tips of their tail-feathers.

The geographical distribution of *Pygmornis* coincides with that of *Phaethornis*, except that we are uncertain about its range in western Ecuador, where, however, some one member of the genus doubtless occurs. Guiana possesses three species, *P. longuemareus*, *P. pygmæus*, and *P. episcopus*. In South Brazil we find the species *P. pygmæus* and *P. idaliæ*, neither going beyond the province of Rio Janeiro. *P. nigrincinctus* is found on the Upper Amazon. *P. longuemareus* is the only species of this genus met with in Venezuela, Trinidad, and Tobago. Coming to the Andes we find *P. striigularis*, which spreads through Columbia and Ecuador; and *P. griseigularis* is found in the same countries and also in Peru. In the great isthmus of Central America, together with Southern Mexico, *P. adolphi* alone is found.

We are able to separate the species of this genus into three groups:—

- | | |
|--|----------------------------------|
| A. Rump green, same colour as the back | <i>Pygmornis idaliæ</i> . |
| B. Rump rufescent or bright rufous. | |
| a. Tail-feathers very broad, and central ones
acute | <i>Pygmornis longuemareus</i> . |
| b. Tail-feathers narrow | <i>Pygmornis adolphi</i> . |
| c. Median tail-feathers subterminally black. | <i>Pygmornis griseigularis</i> . |
| d. Throat grey striated with black | <i>Pygmornis striigularis</i> . |
| C. With prominent pectoral black band in the
male. | |
| a. Mandible basal half yellow | <i>Pygmornis pygmæus</i> . |
| b. Lateral tail-feathers black | <i>Pygmornis episcopus</i> . |
| c. Mandible three-fourths yellow | <i>Pygmornis nigrincinctus</i> . |

PYGMORNIS IDALIÆ.

Trochilus idaliæ, Bourc. & Muls. Ann. Soc. Linn. de Lyon, vol. iii. (1856).

Phaethornis obscura, Gould, P. Z. S. 1857, p. 14.

Pygmornis idaliæ, Gould, Intr. Troch. p. 48.

Phaethornis obscura, Gould, Mon. Troch. vol. i. pl. 38.

Phaethornis viridicaudata, Gould, Mon. Troch. vol. i. pl. 33.

Pygmornis aspasiæ, Gould, Intr. Troch. p. 47.

Hab. South Brazil.

This species was first described by Bourcier, *l. c.*, and the male a year afterwards by Mr. Gould as *Phaethornis obscura*, and the female in the same paper as *P. viridicaudata*. We have seen specimens of the male of this species much darker, and with the tail much more rounded than those figured in Mr. Gould's plate as *P. obscurus*.

Our specimens are as follows:—

One, Brazil (*Bourcier*), one, Brazil (*Gould*), Mus. D. G. E.; one, Brazil (*Verreaux*), Mus. S.-G.

PYGMORNIS LONGUEMAREUS.

Trochilus longuemareus, Less. Trochil. p. 15, pl. ii.

Phaethornis longuemareus, Gould, Mon. Troch. vol. i. pl. 31.

Pygmornis longuemareus, Gould, Intr. Troch. p. 46.

Hab. Guiana; Trinidad (*Léotaud*).

We do not find any difficulty in the determination of this species, its broad tail-feathers, with the median ones quite acute, serving readily to distinguish it from its near allies *P. adolphi* and *P. griseigularis*.

It ranges generally over Guiana, and has also been procured in Trinidad by Léotaud; while it is not at all improbable that it may also inhabit Venezuela, although we have no specimens from that country.

Our specimens are as follows:—

Five, Cayenne (*Whitely*, *Bourcier*, *Deyrolle*), Mus. D. G. E.; one, Cayenne (*Parzudaki*), Mus. P. L. S.

+PYGMORNIS ADOLPHI.

Phaethornis adolphi, Gould, Mon. Troch. vol. i. pl. 35.

Pygmornis adolphi, Gould, Intr. Troch. p. 47.

Hab. Mexico and Central America to Panama.

Bourcier never seems to have described this species himself, and though mentioned under his MS. name, it appears to have been first published by Mr. Gould in his monograph. It is extremely similar to *P. griseigularis*, the only tangible differ-

ences consisting in the central tail-feathers being subterminally green instead of black as in the latter species.

The following are our specimens:—

One, Coban (*Salvin*), one, Bogota (*Parzudaki*), Mus. P. L. S. ; one, Cayenne (*Parzudaki*), Mus. P. L. S. ; one, Vera-Paz (*Salvin*), one, Coban (*Bourcier*), one, Cayenne (*Verreaux*), Mus. D. G. E. ; one, Costa Rica (*Eudres*), one, Veragua (*Arcé*), four, Vera Paz (*Salvin*), three, Panama (*McClennan, Hughes*), Mus. S.-G.

PYGMORNIS GRISEIGULARIS.

Phaethornis griseogularis, Gould, P. Z. S. 1851, p. 115 ; id. Mon. Troch. vol. i. pl. 36.

Pygmornis griseogularis, Gould, Intr. Troch. p. 47.

Trochilus aspasie, Bourc. & Muls. Ann. Soc. Linn. de Lyon, vol. iii. (1856).

Phaethornis zonura, Gould, P. Z. S. 1860, p. 305 ; id. Mon. Troch. vol. i. pl. 34.

Pygmornis zonura, Gould, Intr. Troch. p. 47.

Hab. New Granada.

This species was first described by Gould as above cited ; and a few years later Bourcier gave to it the name of *aspasie*, evidently not being aware that Mr. Gould had already characterized it. In 1860 Mr. Gould bestowed on it another name, that of *zonura*. This, in our opinion, after the examination of the type, kindly lent to us by Mr. Gould, is in no way distinguishable from *P. griseigularis*, of which we have a series of specimens before us, and amongst them Bourcier's type of *P. aspasie*.

Mr. Gould, in his remarks upon *P. zonura*, states that one of its characters is the "deep black colouring of the tail-feathers." We find in the specimens before us that this must not be relied upon as indicating any specific distinctness, as, although some have these feathers black like Mr. Gould's type, others exhibit a greenish shade, but in every other particular are identical.

We have examined the following specimens:—

Two, New Granada (*Bourcier*), one of which is the type of

P. aspasiae, two, New Granada (*Whitely*), one, New Granada (*Boucard*), one, Bogota (*Gould*), Mus. D. G. E.; one, Peru (*Cook*), Mus. D. G. E.; one, Peru (*Gould*), type of *P. zonura*, one, Bogota (*Trübner*), Mus. P. L. S.

PYGMORNIS STRIIGULARIS.

Phaethornis striigularis, Gould, Mon. Troch. vol. i. pl. 37.

Pygmornis striigularis, Gould, Intr. Troch. p. 48.

Pygmornis amaura, Bourc. Rev. Zool. 1856, p. 522.

Phaethornis atrimentalis, Lawr. Ann. Lye. Nat. Hist. N. Y. p. 260, vol. vi. (1858) ?

Phaethornis amaura, Gould, Mon. Troch. vol. i. pl. 32.

Pygmornis amaura, Gould, Intr. Troch. p. 46.

Hab. New Granada and Ecuador.

This species was first described by Mr. Gould in Part iii. of his monograph, and afterwards by Bourcier in 1855, as *Phaethornis amaura*. In 1858 Mr. Lawrence described his *P. atrimentalis*, which Mr. Gould refers to the *P. amaura* of Bourcier. In Elliot's collection is the type of *P. amaura*, Bourcier, which proves to be the same as *P. striigularis*; and the specimen called *P. amaura* by Mr. Gould is only an adult male of the same species.

We have examined the following specimens:—

One, Bogota (*Trübner*), Mus. P. L. S.; one, Ecuador (*Buckley*), Mus. P. L. S.; one, Napo (*Bourcier*), type of *P. amaura*, one, Bogota (*Gould*), one, Napo (*Bourcier*), Mus. D. G. E.; one, Napo (*Gould*), one, Ecuador (*Bourcier*), Mus. J. Gould.

PYGMORNIS PYGMÆUS.

Trochilus pygmæus, Spix, Av. Bras. 1824, p. 78, pl. 80. fig. 1.

Phaethornis pygmæus, Gould, Mon. Troch. vol. i. pl. 41.

Pygmornis pygmæa, Gould, Intr. Troch. p. 49.

Phaethornis eremita, Gould, Mon. Troch. vol. i. pl. 40.

Pygmornis eremita, Gould, Intr. Troch. p. 49.

Phaethornis rufigaster, Less. Hist. Col. t. 9.

Pygmornis rufiventris, Gould, Intr. Troch. p. 48.

Hab. Brazil and Cayenne.

Spix described this species in 1824, from a specimen pro-

cured at Minas Geraes, and gave a very poor figure of it. We can find no differences in examples from various parts of Brazil, and also from Cayenne. We have compared also specimens from Bahia, called *P. eremita* by Gould, with those from Rio Janeiro and other parts of Brazil, and find them identical.

Our specimens are as follows :—

One, Brazil (*Gould*), one, ditto (*Cook*), one, Bahia (*Deyrolle*), Mus. D. G. E. ; one, Rio (*Youds*), two, Brazil, Mus. S.-G. ; one, Brazil (*Leadbeater*), Mus. P. L. S.

PYGMORNIS NIGRICINCTUS.

Phaethornis nigrincinctus, Lawr. Ann. Lyc. Nat. Hist. vol. vi. p. 260 ; Gould, Mon. Troch. vol. i. pl. 39. fig. 1.

Pygmornis nigrincinctus, Gould, Intr. Troch. p. 48.

Hab. Upper Amazons, Pebas (*Hauxwell*) ; Eng. do Gama, Brazil (*Natterer*).

This species, although resembling closely the *P. pygmæus* and *P. episcopus*, presents one constant difference—that is, in the extent of black on the mandible. In the allied species mentioned above, the black extends halfway from the tip ; in *P. nigrincinctus* it is only the tip that is black ; and this character seems always to distinguish it from its relatives. In all other respects we find it resembles the two species with which we have compared it.

Specimens examined :—

Two, Pebas, Peru (*Hauxwell*), Mus. D. G. E. ; three, Pebas (*Hauxwell*), one, Brazil (*Natterer*), Mus. S. & G.

PYGMORNIS EPISCOPUS.

Phaethornis episcopus, Gould, P. Z. S. (1857) p. 14 ; id. Mon. Troch. vol. i. pl. 39. fig. 2.

Pygmornis episcopus, Gould, Intr. Troch. p. 48.

Hab. Guiana.

This species, although very closely allied to *P. pygmæus*, is apparently distinct from that species, the principal point of difference being in the tail, the feathers of which are much broader and blacker. This character is not exhibited in Mr. Gould's plate of the species, his differences being the bronzy hue of the upper surface and tail, broad pectoral band, and

small wings. We find none of these characters wanting in *P. pygmæus* before us; but the black colouring of the tail-feathers, not mentioned by Mr. Gould, we do not find represented in our specimens of *P. pygmæus*; and this fact alone induces us to consider it a species. Our comparisons have been made with the type of *P. episcopus*, kindly lent to us by Mr. Gould.

Specimens examined:—

One, Demerara (*Gould*), type.

III. The Genus *Glaucis*.

With ample materials before us, representing every so-called species of this genus, we are utterly unable to recognize more than one, if we except *G. dohrni*, of which more anon. The variation in the shape and coloration of the rectrices is very much the same as in the genera *Phaethornis* and *Pygornis*, inasmuch as these, with the advancing age of individuals, lose the pointed character of their tips, and become more and more rounded. It would also appear that the subterminal black band becomes narrower, and even evanescent. Upon these two characters, no less than four species have been founded. The males, upon the the underside, especially the throat, are darker in hue than the females.

There can be no doubt as to the first name applied to this species being *hirsuta* of Gmelin, based upon the Brazilian bird. Lesson was the first to divide the species, applying the term *mazeppa* to the form from Guiana. Mr. Lawrence next distinguished the bird from Ecuador as *G. affinis*, basing the species upon the sombre colour of the underparts, which we find to be indicative of old males. Then Mr. Gould, in 1860, described the bird from the Rio Negro and Rio Napo (the same country as that of *G. affinis*) as *G. melanura*; and in his 'Monograph' he gave to specimens from Para (admitted to be immature, which fact is demonstrated in the plate by the light tips of the whole of the wing-feathers, together with the sharply-pointed rectrices) the name of *G. lanceolata*. We may further add that Mr. Gould, though figuring all the above species, and describing some of them himself, does not

appear to hold positive views whether there are four or one species. As regards *Glaucis ænea* of Lawrence, from Costa Rica, the type of which is before us, as well as another specimen from the same country, skinned by the same hand, we find that the bronze colouring of the back and the rich rufous of the under surface can be matched without difficulty in our specimens from southern countries. The blackish mandible of Mr. Lawrence's type is not borne out by the other specimens from the same locality, which have the mandible yellow as in normal South-American specimens.

The bird which has also been included in this genus as *Glaucis dohrni* we believe to be the female of *Grypus spixi*, as already suspected by Mr. Gould (P. Z. S. 1860, p. 304). Whether the species is really referable to the genus *Grypus* remains to be proved. The only known male specimen, the type of *G. spixi* of Gould, has the tip of the maxilla broken, and shows but a slight serration of the edges at the extremity of the bill, not more than is found in perhaps the majority of the so-called genera of Humming-birds. We do not observe in the unbroken mandible the peculiar hook, which forms so marked a character in both *Grypus* and *Androdon*.

The geographical distribution of *Glaucis* is very similar to that of *Phaethornis*, except that it does not proceed further north than Costa Rica, nor have we seen any specimens of it from western Ecuador. On the east coast it goes as far south as Rio, and in the north to the islands of Trinidad and Tobago, and extends over the whole country lying between these points.

† *GLAUCIS HIRSUTA*.

Trochilus hirsutus, Gm. Syst. Nat. tom. i. p. 490.

Glaucis hirsuta, Gould, Mon. Troch. vol. i. pl. 5 ; id. Intr. Troch. p. 38.

Trochilus mazeppa, Lesson, Troch. p. 18, pl. 3.

Glaucis mazeppa, Gould, Mon. Troch. vol. i. pl. 6 ; id. Intr. Troch. p. 38.

Glaucis affinis, Lawr. Ann. Nat. Hist. of New York, vol. vi. p. 261 ; id. Gould, Mon. Troch. vol. i. pl. 7 ; id. Intr. Troch. p. 38.

Glaucis melanura, Gould, P. Z. S. (1860) p. 364; id. Mon. Troch. pl. 9; id. Intr. Troch. p. 39.

Glaucis lanceolata, Gould, Mon. Troch. pl. 8; id. Intr. Troch. p. 39.

Glaucis ænea, Lawr. Pr. Acad. Phil. 1867, p. 232.

Hab. Tropical South America, and Central America to Costa Rica.

We have examined the following specimens:—

Two, South Brazil (*Youds*), three, Bahia (*Wucherer*), Mus. S. & G.; one, Brazil (*Whitely*), Mus. D. G. E.; one, Eng. do Gama, Brazil (*Natterer*), Mus. S. & G.; two, Cayenne (*Deyrolle*), Mus. D. G. E.; two, Pebas (*Hauxwell*), Mus. S. & G.; one Xeberos (*Bartlett*), Mus. D. G. E.; one, Barra do Rio Negro (*Natterer*), Mus. S. & G.; one, Trinidad (*ex Gould*), Mus. P. L. S.; two, Trinidad, Mus. D. G. E.; one, Merida (*Goering*), Mus. D. G. E.; one, Caraccas (*Goering*), Mus. S. & G.; one, Venezuela (*Sallé*), Mus. D. G. E.; one, Bogota (*ex Verdey*), Mus. D. G. E.; one, New Granada (*Leadbeater*), Mus. P. L. S.; three, Panama (*McClenan*), Mus. D. G. E.; four, Panama (*McClenan*), Mus. S. & G.; one, Panama (*Arcé*), Mus. S. & G.; one, Panama (*Salvin*), Mus. S. & G.; one, Costa Rica (*Endres*), Mus. S. & G.; one, Costa Rica (*Endres*), type of *G. æneus*.

IV. The Genus Threnetes.

This genus has generally been deemed to consist of three species—*Thr. leucurus*, *cervinicauda*, and *antoniæ*. We here unite with these a species heretofore included in the genus *Glaucis* as *G. ruckeri*, as being in no way separable from them.

The geographical distribution of this genus is restricted in South America to the northern portion of the continent, no species having been found south of the basin of the Amazon. Two species occur in Guiana alone, *T. leucurus* and *T. antoniæ*; another, *T. cervinicauda*, spreads over the regions of the Upper Amazon westward to the roots of the Andes, while the fourth, *T. ruckeri*, stretches through western Ecuador and the Isthmus of Panama as far north as Costa Rica.

THRENETES LEUCURUS.

Trochilus leucurus, Linn. Syst. Nat. vol. i. p. 190.

Threnetes leucurus, Gould, Mon. Troch. vol. i. pl. 13. ; id.
Intr. Troch. p. 40.

Hab. Guiana.

We have the following specimen :—

One, Surinam (*Gould*), Mus. D. G. E.

THRENETES CERVINICAUDA.

Threnetes cervinicauda, Gould, P. Z. S. 1854, p. 109 ; id.
Mon. Troch. vol. i. pl. 14 ; id. Intr. Troch. p. 40.

Hab. Upper Amazonia, Ecuador, and Columbia.

Our specimens are :—

One, Ecuador (*Gould*), two, ditto (*Buckley*), Mus. D. G. E. ;
one, Bogota (*Gould*), one, Ecuador (*Buckley*), one, Eastern
Peru (*Hauxwell*), Mus. S. & G.

THRENETES ANTONIÆ.

Trochilus antoniæ, Bourc. & Muls. Ann. Soc. d'Agric. de
Lyon (1846), p. 329.

Threnetes antoniæ, Gould, Mon. Troch. vol. i. pl. 15 ; id.
Intr. Troch. p. 40.

Hab. Guiana.

Our specimens are :—

One, Cayenne (*Verreaux*), one, ditto (*Verdey*), Mus. D. G. E.

†THRENETES RUCKERI.

Trochilus ruckeri, Bourc. P. Z. S. 1847, p. 46.

Glaucis ruckeri, Gould, Mon. Troch. vol. i. pl. 11 ; id. Intr.
Troch. p. 39.

Glaucis fraseri, Gould, Mon. Troch. vol. i. pl. 12 ; id. Intr.
Troch. p. 39.

Hab. Central America and Ecuador.

This is not an uncommon species in the southern portion
of Central America, and, according to Fraser, extends south-
wards into Ecuador. Specimens from the latter country have
been separated by Mr. Gould, and called *Glaucis fraseri* in
his monograph of this family. We have compared Mr.
Gould's specimen of *G. fraseri* with those before us from dif-
ferent parts of Central America, and consider it to be merely
T. ruckeri in immature plumage, and in no way worthy of

specific distinctness. A young specimen of *T. ruckeri* from Panama, in Salvin's collection, is precisely similar.

We have examined the following specimens:—

One, Costa Rica (*Carmirol*), Mus. S. & G.; two, Panama (*Arcé*), Mus. S. & G.; one, Costa Rica (*Endres*), Mus. S. & G.; one, Panama (*McLennan*), Mus. S. & G.; one, Panama (*McClennan*), Mus. D. G. E.; one, Ecuador (*Fraser*), Mus. Gould.

XXXII.—*On two Species of Trochilidæ of the Genus Lophornis.* By OSBERT SALVIN, M.A. &c., and D. G. ELLIOT, F.L.S., F.Z.S., &c.

IN Schreibers's 'Collectanea ad Faunam Brasilæ,' 1833, the species generally known to authors as *Lophornis gouldi* (*Ornismya gouldi*, Less.) is described and figured as *Trochilus reginæ*. It is impossible to decide which of these names takes precedence, as Lesson's work on the Trochilidæ extended over more than one year in its publication, and therefore the exact date at which his name was first given cannot be accurately ascertained. Rather than disturb, therefore, a name by which the species is everywhere known, by the substitution of *reginæ* of Schreibers, which possibly may have a slight priority, we have deemed it best to place Schreibers's name among the synonyms of *gouldi*. In either case, however, whether *reginæ* or *gouldi* have precedence, it becomes necessary to give a new name to the very distinct species described as *reginæ* by Gould in 1847, many years after the term had been employed by Schreibers.

The synonymy of the two species will be somewhat as follows:—

LOPHORNIS GOULDI.

Ornismya gouldi, Less. Troch. 1831-33, p. 103, pl. xxxvi.

Trochilus reginæ, Schreib. Collect. Faun. Brasil. pl. 1 (1833).

Lophornis gouldi, Gould, Mon. Troch. vol. iii. pl. 118; id.

Intr. Troch. p. 83.

Hab. Northern Brazil.